

## CLAIMS

1. A device having a master function for use in a network system in which a master device manages at least one slave device,  
5 the device comprising:

a device's own device information managing section operable to manage device's own device information regarding the device;

an other device information managing section operable to manage other device information regarding at least one another  
10 device connected to the network system, the other device information including at least availability of the master function;

a schedule information managing section operable to manage schedule information indicative of master device candidates by predetermined segment;

15 a device information processing section operable, when the device operates as the master device, to specify, at a predetermined time, a slave device which is one of the master device candidates having the master function based on the other device information and the schedule information, and operable to obtain predetermined  
20 information from the specified slave device; and

a switch controlling section operable to control switching of a master operation and a slave operation based on the predetermined information obtained by the device information processing section and the predetermined information included in  
25 the device's own device information.

2. The device according to claim 1, wherein  
the predetermined time is a time when a device having the  
master function is newly connected to the network system.

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3. The device according to claim 1, wherein  
the predetermined time is a time when a change occurs to  
the device's own device information managed by the device's own  
device information managing section.

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4. The device according to claim 3, wherein  
the change of the device's own device information is a  
reduction in a remaining amount of battery.

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5. The device according to claim 3, wherein  
the change of the device's own device information is a  
deterioration in communication quality.

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6. The device according to claim 5, wherein  
the communication quality is a quality of communication with  
the slave device included in the network system.

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7. The device according to claim 5, wherein  
the communication quality is a quality of communication with  
a master device included in another network forming the network

system.

8. The device according to claim 1, wherein  
the predetermined information is resource information  
5 required for the master operation.

9. The device according to claim 8, wherein  
the predetermined information is a remaining amount of  
battery.

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10. The device according to claim 8, wherein  
the predetermined information is a state of load on a CPU.

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11. The device according to claim 1, wherein  
the predetermined segment is a segment of time of day.

12. The device according to claim 1, wherein  
the predetermined segment is a segment of season.

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13. The device according to claim 1, wherein  
the switch controlling section transmits the other device  
information managed by the other device information managing  
section to a device newly performing the master operation.

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14. A master/slave switching method to be performed on a

device currently performing a slave operation by a device currently performing a master operation, the method comprising the steps of:

specifying, at a predetermined time, a slave device which  
5 is one of master device candidates having a master function based on other device information including at least availability of the master function of other devices connected to a network and schedule information indicative of master device candidates by predetermined segment;

10 obtaining predetermined information from the specified slave device; and

controlling switching of the master operation and the slave operation based on the predetermined information obtained in the information obtaining step and predetermined information of  
15 device's own device information of the device currently performing the master operation.

15. A computer-readable program for causing a device currently performing a master operation to perform a method of  
20 performing a master/slave switching process on a device currently performing a slave operation, the program comprising the steps of:

specifying, at a predetermined time, a slave device which  
is one of master device candidates having a master function based  
25 on other device information including at least availability of

the master function of other devices connected to a network and schedule information indicative of master device candidates by predetermined segment;

obtaining predetermined information from the specified  
5 slave device; and

controlling switching of the master operation and the slave operation based on the predetermined information obtained in the information obtaining step and predetermined information of device's own device information of the device currently performing  
10 the master operation.

16. An integrated circuit for use in a device having a master function, the device being used in a network system in which a master device manages at least one slave device, the circuit  
15 comprising:

a device's own device information managing section operable to manage device's own device information regarding a device including the circuit;

an other device information managing section operable to  
20 manage other device information regarding at least one another device connected to the network system, the other device information including at least availability of the master function;

a schedule information managing section operable to manage schedule information indicative of master device candidates by  
25 predetermined segment;

a device information processing section operable, when the device operates as the master device, to specify, at a predetermined time, a slave device which is one of the master device candidates having the master function based on the other device information and the schedule information, and operable to obtain predetermined information from the specified slave device; and

a switch controlling section operable to control switching of a master operation and a slave operation based on the predetermined information obtained by the device information processing section and the predetermined information included in the device's own device information.